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WASHINGTON, DC 20005

EXAMINER

WANG, JIN CHENG

ART UNIT	PAPER NUMBER
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2672

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/821,587

Applicant(s)

HIGGINS ET AL.

Examiner

Jin-Cheng Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2004 and 27 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>19</u> | 6) <input type="checkbox"/> Other: _____  |

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## **DETAILED ACTION**

### **Response to Amendment**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 02/24/2004 has been entered. Claims 1, 8, 15, 19 have been amended. Claims 5-6 have been canceled. Claims 1-4, 7-20 are pending in the application.

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 6-20 are rejected under 35 U.S.C. 103(a) as being as being unpatentable over Saylor U.S. Patent No. 5,487,139 (hereinafter Saylor) in view of Tamano et al. U.S. Patent No. 6,032,157 (hereinafter Tamano).

3. Claim 1:

(1) Saylor teaches a method for manipulating a map, comprising:

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Displaying a first map (a vector map or a raster map) in one area of a display (e.g., column 2, lines 25-48; column 3, lines 5-15; column 7, lines 40-60); wherein the first map is a vector map (column 6, lines 28-50);

Displaying a second map (e.g., primary maps, feeder maps, storm maps; column 4, lines 50-67) in the display (e.g., column 2, lines 25-48; column 3, lines 5-15; column 7, lines 40-60), wherein the first map and the second map depict at least a portion of an identical geographic region (e.g., aligning corresponding areas of the raster map the vector map; column 2, lines 25-48);

Making a first annotation (e.g., emergency caller's addresses, an annotation containing information characteristic to the territory corresponding to the area of the raster map; labeling or identifying addresses within the territory depicted by the aligned raster and vector maps; entering an address to search in the vector background database; column 6, lines 30-50) on a first region of the first map (e.g., column 5, lines 30-40);

Determining a geographic region on the second map (e.g., determining a graphical representation of an address located within the area represented by the raster map and aligning corresponding areas of the raster map and the vector map; the information on individual names and addresses within the territory depicted by the aligned raster and vector maps provides latitude/longitude identifiers for each vector; the aligned territory or color marked events on the raster map provides for the second annotation; column 4, lines 1-20; column 5, lines 15-29; column 7, lines 40-55) corresponding to the first region (e.g., column 5, lines 1-42); and

Adding a second annotation (e.g., second annotation such as colors marking disturbance events and posting an event marker at an appropriate location on the appropriate map along with

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labeling of addresses within the territory depicted by the aligned raster and vector map wherein labeling of addresses is considered as the first annotation and the coloring of the disturbance events is considered as the second annotation, or addresses for the aligned territory; and/or outage/interruptions/disturbances annotation to the map or to on-line service database; the geocoding means for the alignment of the two maps; see e.g., column 1 and 3) to the second map (e.g., a storm map or a network wall map; the second annotation such as serviceable event with color event marker has been added to the aligned map displayed on a plurality of display screens) at the determined geographic region (e.g., column 1, lines 30-50; column 7, lines 40-60).

(2) However, Saylor is silent to the claim limitation of displaying a second map in a second area of the display.

(3) Tamano teaches “displaying a second map in a second area of the display” (Summary of the Invention, figure 10(c), column 6, lines 32-67, column 8, lines 34-67, column 9, lines 1-11).

(4) It would have been obvious to one of ordinary skill in the art to have displayed separately the two maps into Saylor’s method for manipulating a map because Saylor teaches overlaying the images and transferring outage information to on-line service database for which the system can display the location of the interruption/disturbance on a display monitor and/or a plurality of display monitors and/or wall via projector (figure 1) and therefore teaches displaying the aligned maps on a plurality of display monitors and/or the wall via projector and therefore suggesting an obvious modification of Saylor.

Saylor suggests displaying a second map in a second area of the display while Saylor teaches displaying the aligned map in a first area of the display because Saylor maps be

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displayed both on the computer monitor and large screen from floor to ceiling and wall to wall at the system coordination center or the system control center (See Saylor column 1, lines 29-30 and column 3, lines 15-25). Therefore, Saylor teaches displaying the first map (along with the aligned second map) in the computer monitor and displaying the second map (along with the aligned first map) in the large mapboard such as the large screen from wall to wall or another computer monitor. Saylor at least suggests the claim limitation of “displaying a second map in a second area of the display.”

Tamano teaches in figure 1 and column 4, lines 26-53 the first image information 1 is a residence map and the second image information 2 is a road map. Tamano teaches in column 6, lines 32-67 a first region of the first map and a second region of the second map. Tamano teaches in column 4, lines 26-53 and column 6, lines 32-67 making an annotation on a first region of the first map by using the cursor 103 or moving a finger or hand on a touch panel attached to the display screen.

(5) One having the ordinary skill in the art would have been motivated to do this because it would have advantageously provided display means for displaying two maps separately in two different areas of the same display so that the corresponding areas between the raster map and the vector map can be clearly identified on separate displays such as on the map board on the walls of a control center and the computer monitors and the corresponding areas of the raster map and the vector map can be annotated with different symbols such as colors marking the disturbance events and addresses identifying the troubled areas (See Saylor column 1, lines 29-30 and column 3, lines 15-25).

Claim 2:

The claim 2 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of “selecting a second map.” However, Tamano further discloses the claimed limitation of selecting a second map (e.g., Tamano column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches selecting a second map in which addresses are identified within the territory depicted by the aligned raster and vector maps (Saylor column 3, lines 4-15).

Claim 3:

The claim 3 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of “selecting a first map.” However, Tamano further discloses the claimed limitation of selecting a first map (Tamano column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches that the aligned map provide an X, Y coordinate basis for the locating of specific addresses within the territory represented by the raster map (Saylor column 3, lines 4-15).

Claim 4:

The claim 4 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of “receiving a display of a second map that is automatically associated with the first map.” However, Tamano further discloses the claimed limitation of receiving a display of a second map that is automatically associated with the first map (Tamano column 4, lines 26-

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53 and column 6, lines 32-67). The Saylor reference teaches receiving a display of a second map that is automatically associated with the first map (Saylor column 2, lines 27-48)

Claim 7:

The claim 7 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the second map being a digital raster map. However, Tamano further discloses the claimed limitation of the first map being a vector map and the second map being a digital raster map (Tamano column 1, lines 7-67, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches obtaining/receiving a raster image of the existing map; providing a vector database having information characteristic to the territory (region) represented by the rasterized map (i.e., second map); displaying a vector map (i.e., first map) from the vector database, the displayed vector map containing information characteristic to the territory depicted in the rasterized map; substantially aligning corresponding areas of the raster map and the vector map (i.e., automatically manipulating a second map) (Saylor column 2, lines 27-48). The Saylor reference further teaches raster/vector overlaying capabilities and multi-simultaneous user software including CAD capabilities to create nested drawings and maps with graphical tools, complete coordinate geometry features to facilitate the designing and inputting of field and map surveying information for highways, waterways, etc., a graphical relations database system for tracking information contained on maps and drawings, information manipulation capabilities including the ability to zoom and pan maps in which a user can search vector background for name match (Saylor column 4, lines 7-19, and column 6, lines 28-45).



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## Claim 8:

The claim 8 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the second map being a vector map. However, Tamano further discloses the claimed limitation of the second map being a vector map (Tamano column 1, lines 7-67, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches selecting a vector map (first map) in which addresses are identified within the territory depicted by the aligned raster and vector maps (Saylor column 3, lines 4-15). The Saylor reference teaches obtaining/receiving a raster image of the existing map; providing a vector database having information characteristic to the territory (region) represented by the rasterized map (i.e., second map); displaying a vector map (i.e., first map) from the vector database, the displayed vector map containing information characteristic to the territory depicted in the rasterized map; substantially aligning corresponding areas of the raster map and the vector map (i.e., automatically manipulating a second map) (Saylor column 2, lines 27-48).

## Claim 9:

The claim 9 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the user manipulating the first map. However, Tamano further discloses the claimed limitation of the user manipulating the first map (Tamano column 1, lines 7-67, column 2, lines 53-65, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches "user manipulation" in a rasterizing system where a user can convert raster scanned images into a different format for system manipulation such as the ability to zoom and pan maps (Saylor column 5, lines 1-14, and column 4, lines 7-19).

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Claim 10:

The claim 10 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of the user manipulating the second map. However, Tamano further discloses the claimed limitation of the user manipulating the second map (Tamano column 1, lines 7-67, column 2, lines 40-52, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches the user manipulation of the second map in the user interface such as "Import Vector Background Into System" to provide latitude/longitude identifiers for each vector (column 5, lines 15-28). The Saylor reference also teaches locating an address on the second map (Saylor column 7, 9-18)

Claim 11:

The claim 11 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of receiving a display of a second region associated with a second map, the second region being geographically substantially similar to the first region. However, Tamano further discloses the claimed limitation of receiving a display of a second region (part 104) associated with a second map, the second region being geographically substantially similar to the first region (part 105) (Tamano figure 10(c), column 4, lines 44-46, column 6, lines 32-67). The Saylor reference teaches displaying a vector map (i.e., a second map) from the vector database (Saylor column 2, lines 27-48). The Saylor reference teaches that the raster scanned images and the vector maps generated from the vector background database are overlaid and aligned (Saylor column 5, lines 29-41). The Saylor reference further teaches locating a second

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address on the second map having the second address geographically substantially similar to the first address (Saylor column 7, 9-18)

Claim 12:

The claim 12 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of changing a view of the first map. However, Tamano further discloses the claimed limitation of changing a view of the first map (Tamano column 3, lines 15-25). The Saylor reference discloses the user interface software that has the ability to zoom and pan maps (Saylor column 5, lines 1-14, and column 4, lines 7-19).

Claim 13:

The claim 13 encompasses the same scope of invention as that of claim 12 except additional claimed limitation of receiving a display in response to the user interaction. However, Tamano further discloses the claimed limitation of receiving a display in response to the user interaction (Tamano column 1, lines 7-67, column 2, lines 40-52, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches a system capable of displaying the location of the interruption/disturbance on display monitor (Saylor figure 1) upon user interaction so as to appear overlapped on the raster-scanned map (Saylor column 7, lines 40-59).

Claim 14:

The claim 14 encompasses the same scope of invention as that of claim 13 except additional claimed limitation of receiving a display of the second map, the display of the second map being representative of the responsive display of the first map. However, Tamano further discloses the claimed limitation of receiving a display of the second map, the display of the second map being representative of the responsive display of the first map (Tamano column 1,

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lines 7-67, column 2, lines 40-52, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference implicitly teaches receiving the outage coordinates and displaying them on a raster-scanned map (Saylor column 7, lines 40-59).

4. Claim 15:

The claim 15 encompasses the same scope of invention as that of claim 1 except additional claimed limitation of a computer readable medium containing instructions executable by a computer to manipulate a map.

However, Tamano further discloses the claimed limitation of a computer readable medium containing instructions executable by a computer to manipulate a map (Tamano column 5, lines 7-20). The Saylor reference teaches in figure 1 a computer readable medium such as the InfoCAD, i.e., the computer aided drafting geographical information system package having raster/vector overlaying capabilities (Saylor column 4, lines 1-6).

Claim 16:

The claim 16 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of enabling viewer referencing of at least the first map. However, Tamano further discloses the claimed limitation of enable viewer referencing of at least the first map (see e.g., Tamano column 1, lines 7-67, column 2, lines 40-52, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches that the aligned map provide an X, Y coordinate basis for the locating of specific addresses within the territory represented by the raster map (Saylor column 3, lines 4-15).

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## Claim 17:

The claim 17 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of receiving a command to change a map view; and receiving a responsive display of the first map, the responsive display being representative of the user interaction. However, Tamano further discloses the claimed limitation of receiving a command to change a map view; and receiving a responsive display of the first map, the responsive display being representative of the user interaction (see e.g., Tamano column 1, lines 7-67, column 2, lines 40-52, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches that InFoCAD has the information manipulation capabilities including the ability to zoom and pan maps (Saylor column 4, lines 1-18). Moreover, the Saylor reference implicitly teaches a system capable of displaying the location of the interruption/disturbance on display monitor (Saylor figure 1) upon a user interaction so as to appear overlapped on the raster-scanned map (Saylor column 7, lines 40-59).

## Claim 18:

The claim 18 encompasses the same scope of invention as that of claim 15 except additional claimed limitation of receiving of a display of a second region on the second map, the second region being geographically substantially similar to the first region. However, Tamano further discloses the claimed limitation of receiving of a display of a second region on the second map, the second region being geographically substantially similar to the first region (see e.g., Tamano column 1, lines 7-67, column 2, lines 40-52, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches the multi-simultaneous user software including CAD capabilities to create nested drawings and maps with graphical tools (Saylor column 4, lines 7-

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18). The Saylor reference also teaches locating a second address on the second map having the second address geographically substantially similar to the first address (Saylor column 7, 9-18).

5. Claim 19:

The claim encompasses the same scope of invention as that of claim 1 except additional claimed limitation of an apparatus for manipulating a map.

However, Tamano further discloses the claimed limitation of an apparatus for manipulating a map (figure 2, see e.g., column 1, lines 7-67, column 2, lines 40-52, column 4, lines 26-53 and column 6, lines 32-67). The Saylor reference teaches in figure 1 an apparatus with a computer memory such as a storm database 16 and an on-line service database 18 coupled with a workstation 12 capable of enabling map manipulation (Saylor column 4, lines 20-37).

Claim 20:

The claim 20 encompasses the same scope of invention as that of claims 19 and 16-18.

The claim is rejected for the same reason as set forth in above.

***Remarks***

6. Applicant's arguments, filed 02/24/2004, paper number 16, have been fully considered.
7. Applicant argues in essence with respect to claim 1 and similar claims that:

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(A) “Saylor and Tamano, taken alone or in combination, do not disclose or suggest at least these features.”

In response to the arguments in (A), the examiner asserts that the prior art teach the Applicant’s claimed invention. In particular,

The Saylor reference teaches a map manipulating method including steps of: employing an existing map (a raster map or a vector map) and an object database containing information on addresses located within the territory represented by the existing map; obtaining and display a raster map corresponding to the existing map, providing a vector database having information characteristic to the territory (region) represented by the rasterized map; displaying a vector map from the vector database, the displayed vector map containing information characteristic to the territory depicted in the rasterized map; substantially aligning corresponding areas of the raster map and the vector map (i.e., automatically manipulating a second map) (see for example, column 2, lines 27-48). The Saylor reference further teaches that the aligned map provide an X, Y coordinate basis for the locating of specific addresses within the territory represented by the raster map (column 3, lines 4-15).

Saylor also teaches adding the second annotation (e.g., posting an event marker at an appropriate location on the appropriate map, adding a marker, a colored pin for the interruptions/disturbances, the aligned territory on the raster scanned map and/or vector map, etc.) to the second map (e.g., column 1, lines 30-50; column 7, lines 40-60).

Moreover, Saylor suggests displaying a second map in a second area of the display while Saylor teaches displaying the aligned map in a first area of the display because Saylor maps be

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displayed both on one of the plurality of computer monitors and large screen from floor to ceiling and wall to wall or projecting the aligned map on the wall at the system coordination center or the system control center (See column 1, lines 29-30 and column 3, lines 10-25).

Therefore, Saylor teaches displaying the first map (along with the aligned second map) in the computer monitor and displaying the second map (along with the aligned first map) in the large mapboard such as the large screen from wall to wall or another computer monitor. Saylor at least suggests the claim limitation of “displaying a second map in a second area of the display.”

Tamano teaches in figure 1 and column 4, lines 26-53 the first image information 1 is a residence map and the second image information 2 is a road map. Tamano teaches in column 6, lines 32-67 a first region of the first map and a second region of the second map. Tamano teaches in column 4, lines 26-53 and column 6, lines 32-67 making an annotation on a first region of the first map by using the cursor 103 or moving a finger or hand on a touch panel attached to the display screen.

Therefore, Saylor/Tamano fulfills the amended claims as currently drafted.

### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jin-Cheng Wang whose telephone number is (703) 605-1213. The examiner can normally be reached on 8:00 - 6:30 (Mon-Thu).

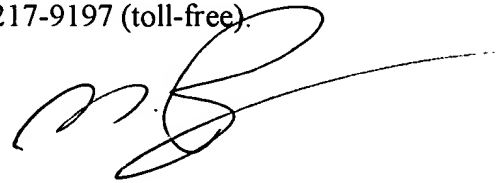
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on (703) 305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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jcw



**MICHAEL RAZAVI**  
SUPERVISORY PATENT EXAMINER  
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